

Remarks- Claims

Claims 1-32 are pending in the application. Claims 1-9, 12-21, 24-29 and 32 were rejected. Claims 10,11,22,23, 30, and 31 were objected to.

Claim 32 was rejected under 35 U.S.C. 102 (b) as being anticipated by Madhow (US Patent 6,175,587).

Claims 32 has been modified to recite that the matrix is generated from the linear combination of one or more interference vectors, a limitation that is supported in the Specification as filed, and not taught in any of the cited prior art.

Applicants believe that amended Claim 32 is no longer anticipated by Madhow and should be considered novel and inventive over Madhow.

Claims 1-9, 16-21 and 24-29 were rejected under U.S.C. 103(a) as being unpatentable over Klein et. al (US 2004/0132443) in view of Madhow.

Similar to the modification effected in Claim 32, applicants have modified independent claims 1, 16 and 24 to recite that the matrix is generated as the linear combination of one or more interference vectors, where each interference vector comprises a component of an interfering signal. In contrast, Madhow teaches (Column 7, lines 2-5) that the matrix has a dimension equal to the number of interference vectors being suppressed. The matrix taught by applicants' invention would have a dimension of one, irrespective of the number of interference vectors being suppressed. This offers the advantage of vastly reduced complexity.

The cited prior art (Madhow) teaches away from the invention, and applicants believe that these claim amendments should traverse the examiner's rejection of Claims 1,16 and 24, which applicants believe to be novel and inventive. With respect to the additional dependent claims, Applicant believes the novel and non-obvious features of the corresponding independent claims should make the dependent claims novel and non-obvious as well.

Dependent claims 2-15, 17-23 and 25-31 should also be patentable since they contain all the limitations of Independent Claims 1, 16 and 24.

Dependent claims 5,6, 12 and 14, which are directly or indirectly dependent on Claim 1 have been amended to better characterize the invention, and are supported in the Specification (Page 11, lines 5-6 of Specification)

Dependent claims 17,18, 19 and 20, which depend directly or indirectly on Claim 16 have been amended to better characterize the invention, and are also supported in the Specification.

Dependent claims 27 and 28, which depend directly on Claim 24 have been amended to better characterize the invention, and are also supported in the Specification.

Conclusion

Applicant has thoroughly discussed the Examiner's objections of the claims in the Office Letter. Applicant maintains that the claims distinguish from the teachings of all prior art of record, either alone or in any combination. Applicant respectfully requests reconsideration and placement of the application in condition for allowance.

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Respectfully submitted,

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